

### Abstract

A curved surface, such as a helmet, including a light source and light conductive paths. Light emitting diodes (LEDs) provide the light source and fiber optic conductors provide the light conductive paths. The fiber optic conductors have polished ends to create lenses. A microprocessor or other logic, powered by a battery, can control the LEDs, possibly of different colors, to generate various colors or patterns for display. The components, including the microprocessor, battery, and light source, can be contained with a breakaway compartment in the helmet. The battery can include light rechargeable batteries positioned in the top of the helmet shell. The fiber optic conductors can be attached to or molded into the helmet shell so that the light traveling through them is visible and creates particular light patterns for display or is fully focused to the ends.